

We claim:

1. A fluorescent dye for labelling a biological molecule comprising:

5 a donor group, said donor group comprising a UV absorbing chromophore;

at least one acceptor group, said acceptor group comprising a fluorescent emitter, wherein said UV chromophore absorbs energy at a lower wavelength than that emitted by the fluorescent emitter, and said donor group and said acceptor group are conjugated to each other such that energy transfer between the donor group and the acceptor group comprises transfer via a through bond mechanism.

15 2. The dye of claim 1 wherein said donor group is an anthracene derivative.

3. The dye of claim 1 wherein said acceptor group is a BODIPY fragment.

4. The dye of claim 1 further comprising a functionality group for attaching said dye to the biomolecule.

20 5. The dye of claim 4 wherein said functionality group comprises a bromine functionality on the donor group for attachment to the biomolecule and said biomolecule comprises a DNA molecule.

25 6. The dye of claim 4 wherein said functionality group comprises a succinimidyl ester.

7 The dye of claim 1 further comprising a functional group
for incorporating a label on said dye.

8. The dye of claim 1 wherein said chromophore absorbs
energy at about 266 nanometers.

5 9. The dye of claim 1 further comprising a plurality of
fluorescent emitters, each with a different emission
wavelength.

10 10. The dye of claim 1 further comprising a second
chromophore wherein said UV absorbing chromophore and said
second chromophore absorb in mutually exclusive regions of the
spectrum.

11. The dye of claim 1 wherein said biological molecules are
labelled for high throughput DNA sequencing.

15 12. A method for labelling a biological molecule comprising
contacting the molecule with the dye of claim 1.

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